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July 17, 2020

VIA ELECTRONIC FILING

The Honorable Jocelyn Boyd
Chief Clerk / Executive Director
Public Service Commission of South Carolina
101 Executive Center Drive, Suite 100
Columbia, SC 29210

Re: Nuclear Decommissioning Cost & Funding Studies
Docket No. 2013-472-E

Dear Ms. Boyd:

Pursuant to Order No. 2013-36 in Docket No. 2013-472-E, *Petition of Duke Energy Progress, LLC for an Accounting Order for Deferrals Associated with Sutton, Fukushima, Cyber Security, Harris COLA and Decommissioning*, Duke Energy Progress, LLC (the "Company") is required to submit periodic reports to the Commission that provide updates on decommissioning cost studies and the status of the funds. On March 20, 2020, the Company filed with the Commission a copy of the Cost Analyses of the Company's nuclear units located at the Brunswick, Harris, and Robinson Nuclear Stations. The Company is now filing the funding study associated with the updated Cost Analyses for the Commission's information. The Company is not requesting any action by the Commission at this time pertaining to this filing.

Kind regards,

Sam Wellborn

SJW:tch

Enclosure

cc w/enc: Nanette S. Edwards, Office of Regulatory Staff (via email)
Dawn Hipp, Office of Regulatory Staff (via email)
Jeffrey M. Nelson, Office of Regulatory Staff (via email)
Heather Shirley Smith, Deputy General Counsel (via email)
Rebecca J. Dulin, Associate General Counsel (via email)

DECOMMISSIONING COST & FUNDING REPORT

AS OF December 31, 2019

(in Dollars)

(1) UTILITY:
Duke Energy Progress(2) PLANT:
All(3) UNIT:
All(4) COST STUDY COMPLETION DATE:
December 31, 2019

(5) DECOMMISSIONING STUDY INFORMATION		(7) DECOMMISSIONING COST ESTIMATE:	
(a) Decommissioning Year: license expiration	2030 to 2046	(a) Current Year Dollars:	
(b) Decommissioning Method Selected:	Prompt Dismantlement	1a. Radioactive Cost - License Termination	\$ 2,951,803,268
(c) Cost Estimate Preparer	TLG Services, Inc.	1b. Radioactive Cost - Spent Fuel	\$ 933,385,474
		1. Total Radioactive Cost	\$ 3,885,188,742
		2. Non-Radioactive Cost	\$ 295,345,157
		3. Total	\$ 4,180,533,900
		4. 2019 NRC Minimum Cost Pursuant to 10 CFR 50.75 (b) and (c)	\$ 2,208,207,225
(6) CALCULATION FACTORS:		(b) Projected Costs At License Expiration (2030-2046)	
(a) Projected Escalation Rate	Rate varies by unit	1a. Radioactive Cost - License Termination	\$ 4,840,262,802
(b) Source Of Escalation Rate	December 2019 TLG Escalation Analysis	1b. Radioactive Cost - Spent Fuel	\$ 1,615,541,678
		2. Non-Radioactive Cost	\$ 499,567,640
(c) Projected Net-Of-Tax Rate Of Return		3. Total	\$ 6,955,372,120
1. External Qualified Fund	Rates vary by unit		
2. External Non-Qualified Fund	Rates vary by unit	(8) REVENUE REQUIREMENTS FOR SC RETAIL:	
3. Internal Fund	n/a	Annual Total Revenue Requirements	
4. Composite	n/a	Radioactive - License Termination	
(d) SC Retail Jurisdictional Allocation Factor	11.270% (Note 2)	1. Annual Revenue Requirement - External Qualified Fund	\$ -
(e) Utility Ownership Factor		2. Annual Revenue Requirement - External Non-Qualified Fund	\$ -
Robinson 2	100%	Radioactive - Spent Fuel	
Brunswick 1	100%	3. Annual Revenue Requirement - External Qualified Fund	\$ 148,574
Brunswick 2	100%	4. Annual Revenue Requirement - External Non-Qualified Fund	\$ -
Harris 1	100%	Non-Radioactive	
		5. Annual Revenue Requirement - Non-Radiological Qualified Fund	\$ 63,192
		6. Total	\$ 211,766
		(9) POST ACCIDENT PREMATURE DECOMMISSIONING INSURANCE:	
		See Note 5 to 2019 Duke Energy Consolidated Financial Statements	
ITEM / JURISDICTION			
		SC Retail	All Jurisdictions
(10) FUND BALANCES AT COST ESTIMATE STUDY DATE:			
Beginning balances used in cost and funding calculations			
(a) External - Qualified Funds - License Termination		\$ 366,457,380	\$ 2,557,510,875
(b) External - Nonqualified Funds - License Termination		\$ 62,961,559	\$ 463,292,696
(c) Internal Fund		\$ -	\$ -
(d) Total		\$ 429,418,939	\$ 3,020,803,571
(11) PROJECTED FUND BALANCES AT LICENSE EXPIRATION (Note 3):			
2030-2046 Excluding Expenses			
(a) External - Qualified Funds		\$ 746,505,103	\$ 5,912,279,076
(b) External - Nonqualified Funds		\$ 95,778,121	\$ 764,710,504
(c) Internal Fund		\$ -	\$ -
(d) Total		\$ 842,283,224	\$ 6,676,989,580

Note 1: For purposes of ensuring adequate funds are available when needed, the external decommissioning funds will be "de-risked" (i.e., the portfolio will be moved from traditional growth investments to more secure investments) 5 years before decommissioning costs are expected to be incurred.

Note 2: NC Retail Jurisdictional Allocation factor was determined by using a lifetime weighted average through 2038, which represents the average license termination date of the DEP nuclear fleet.

Note 3: Projected fund balances for all jurisdictions includes projections for SC Retail and Wholesale customers which has not yet been filed or approved. As such, amounts are subject to change.

DECOMMISSIONING COST & FUNDING REPORT

AS OF December 31, 2019

(in Dollars)

(1) UTILITY:
Duke Energy Progress(2) PLANT:
Robinson(3) UNIT:
Unit 2(4) COST STUDY COMPLETION DATE:
December 31, 2019

(5) DECOMMISSIONING STUDY INFORMATION			(7) DECOMMISSIONING COST ESTIMATE:		
(a) Decommissioning Year: license expiration	2030		(a) Current Year Dollars:		
(b) Decommissioning Method Selected:	Prompt Dismantlement		1a. Radioactive Cost - License Termination	\$	684,429,750
(c) Cost Estimate Preparer	TLG Services, Inc.		1b. Radioactive Cost - Spent Fuel	\$	161,471,589
			1. Total Radioactive Cost	\$	845,901,339
			2. Non-Radioactive Cost	\$	65,596,934
			3. Total	\$	911,498,273
			4. 2019 NRC Minimum Cost Pursuant to 10 CFR 50.75 (b) and (c)	\$	439,773,322
(6) CALCULATION FACTORS:			(b) Projected Costs At License Expiration (2030)		
(a) Projected Escalation Rate	2.82%		1a. Radioactive Cost - License Termination	\$	929,555,654
(b) Source Of Escalation Rate	December 2019 TLG Escalation Analysis		1b. Radioactive Cost - Spent Fuel	\$	219,302,023
(c) Projected Net-Of-Tax Rate Of Return			2. Non-Radioactive Cost	\$	89,090,226
1. External Qualified Fund	4.53%, then de-risk to 2.14% (Note 1)		3. Total	\$	1,237,947,903
2. External Non-Qualified Fund	2.50%, then de-risk to 2.05% (Note 1)				
3. Internal Fund	n/a				
4. Composite	n/a				
(d) SC Retail Jurisdictional Allocation Factor	11.270%	(Note 2)			
(e) Utility Ownership Factor					
Robinson 2	100%				
Brunswick 1	100%				
Brunswick 2	100%				
Harris 1	100%				
			(8) REVENUE REQUIREMENTS FOR SC RETAIL:		
			Annual Total Revenue Requirements		
			Radioactive - License Termination		
			1. Annual Revenue Requirement - External Qualified Fund	\$	-
			2. Annual Revenue Requirement - External Non-Qualified Fund	\$	-
			Radioactive - Spent Fuel		
			3. Annual Revenue Requirement - External Qualified Fund	\$	-
			4. Annual Revenue Requirement - External Non-Qualified Fund	\$	-
			Non-Radioactive		
			5. Annual Revenue Requirement - Non-Radiological Qualified Fund	\$	-
			6. Total	\$	-
			(9) POST ACCIDENT PREMATURE DECOMMISSIONING INSURANCE:		
			See Note 5 to 2019 Duke Energy Consolidated Financial Statements		
ITEM / JURISDICTION					
				SC Retail	All Jurisdictions
(10) FUND BALANCES AT COST ESTIMATE STUDY DATE:					
Beginning balances used in cost and funding calculations					
(a) External - Qualified Funds - License Termination			\$	115,842,986	\$ 775,332,190
(b) External - Nonqualified Funds - License Termination			\$	3,824,631	\$ 24,119,871
(c) Internal Fund			\$	-	\$ -
(d) Total			\$	119,667,618	\$ 799,452,061
(11) PROJECTED FUND BALANCES AT LICENSE EXPIRATION (Note 3):					
2030 Excluding Expenses					
(a) External - Qualified Funds			\$	168,195,539	\$ 1,194,855,959
(b) External - Nonqualified Funds			\$	-	\$ -
(c) Internal Fund			\$	-	\$ -
(d) Total			\$	168,195,539	\$ 1,194,855,959

Note 1: For purposes of ensuring adequate funds are available when needed, the external decommissioning funds will be "de-risked" (i.e., the portfolio will be moved from traditional growth investments to more secure investments) 5 years before decommissioning costs are expected to be incurred.

Note 2: NC Retail Jurisdictional Allocation factor was determined by using a lifetime weighted average through 2038, which represents the average license termination date of the DEP nuclear fleet.

Note 3: Projected fund balances for all jurisdictions includes projections for SC Retail and Wholesale customers which has not yet been filed or approved. As such, amounts are subject to change.

DECOMMISSIONING COST & FUNDING REPORT

AS OF December 31, 2019

(in Dollars)

(1) UTILITY:
Duke Energy Progress(2) PLANT:
Brunswick(3) UNIT:
Unit 1(4) COST STUDY COMPLETION DATE:
December 31, 2019

(5) DECOMMISSIONING STUDY INFORMATION			(7) DECOMMISSIONING COST ESTIMATE:		
(a) Decommissioning Year: license expiration	2036		(a) Current Year Dollars:		
(b) Decommissioning Method Selected:	Prompt Dismantlement		1a. Radioactive Cost - License Termination	\$	804,493,044
(c) Cost Estimate Preparer	TLG Services, Inc.		1b. Radioactive Cost - Spent Fuel	\$	191,586,400
			1. Total Radioactive Cost	\$	996,079,444
			2. Non-Radioactive Cost	\$	81,486,199
			3. Total	\$	1,077,565,642
			4. 2019 NRC Minimum Cost Pursuant to 10 CFR 50.75 (b) and (c)	\$	652,001,591
(6) CALCULATION FACTORS:			(b) Projected Costs At License Expiration (2036)		
(a) Projected Escalation Rate	2.85%		1a. Radioactive Cost - License Termination	\$	1,297,594,192
(b) Source Of Escalation Rate	December 2019 TLG Escalation Analysis		1b. Radioactive Cost - Spent Fuel	\$	309,016,220
			2. Non-Radioactive Cost	\$	131,431,861
			3. Total	\$	1,738,042,272
(c) Projected Net-Of-Tax Rate Of Return			(8) REVENUE REQUIREMENTS FOR SC RETAIL:		
1. External Qualified Fund	4.52%, then de-risk to 2.14% (Note 1)		Annual Total Revenue Requirements		
2. External Non-Qualified Fund	4.51%, then de-risk to 2.05% (Note 1)		Radioactive - License Termination		
3. Internal Fund	n/a		1. Annual Revenue Requirement - External Qualified Fund	\$	-
4. Composite	n/a		2. Annual Revenue Requirement - External Non-Qualified Fund	\$	-
(d) SC Retail Jurisdictional Allocation Factor	11.270%	(Note 2)	Radioactive - Spent Fuel		
(e) Utility Ownership Factor			3. Annual Revenue Requirement - External Qualified Fund	\$	148,574
Robinson 2	100%		4. Annual Revenue Requirement - External Non-Qualified Fund	\$	-
Brunswick 1	100%		Non-Radioactive		
Brunswick 2	100%		5. Annual Revenue Requirement - Non-Radiological Qualified Fund	\$	63,192
Harris 1	100%		6. Total	\$	211,766
			(9) POST ACCIDENT PREMATURE DECOMMISSIONING INSURANCE:		
			See Note 5 to 2019 Duke Energy Consolidated Financial Statements		
ITEM / JURISDICTION					
			SC Retail	All Jurisdictions	
(10) FUND BALANCES AT COST ESTIMATE STUDY DATE:					
Beginning balances used in cost and funding calculations					
(a) External - Qualified Funds - License Termination			\$ 75,384,717	\$	561,164,636
(b) External - Nonqualified Funds - License Termination			\$ 21,739,428	\$	175,509,401
(c) Internal Fund			\$ -	\$	-
(d) Total			\$ 97,124,145	\$	736,674,037
(11) PROJECTED FUND BALANCES AT LICENSE EXPIRATION (Note 3):					
2036 Excluding Expenses					
(a) External - Qualified Funds			\$ 153,637,179	\$	1,362,131,124
(b) External - Nonqualified Funds			\$ 35,364,854	\$	301,376,803
(c) Internal Fund			\$ -	\$	-
(d) Total			\$ 189,002,033	\$	1,663,507,927

Note 1: For purposes of ensuring adequate funds are available when needed, the external decommissioning funds will be "de-risked" (i.e., the portfolio will be moved from traditional growth investments to more secure investments) 5 years before decommissioning costs are expected to be incurred.

Note 2: NC Retail Jurisdictional Allocation factor was determined by using a lifetime weighted average through 2038, which represents the average license termination date of the DEP nuclear fleet.

Note 3: Projected fund balances for all jurisdictions includes projections for SC Retail and Wholesale customers which has not yet been filed or approved. As such, amounts are subject to change.

DECOMMISSIONING COST & FUNDING REPORT

AS OF December 31, 2019

(in Dollars)

(1) UTILITY:
Duke Energy Progress(2) PLANT:
Brunswick(3) UNIT:
Unit 2(4) COST STUDY COMPLETION DATE:
December 31, 2019

(5) DECOMMISSIONING STUDY INFORMATION				(7) DECOMMISSIONING COST ESTIMATE:			
(a) Decommissioning Year: license expiration		2034		(a) Current Year Dollars:			
(b) Decommissioning Method Selected:		Prompt Dismantlement		1a. Radioactive Cost - License Termination		\$ 696,692,344	
(c) Cost Estimate Preparer		TLG Services, Inc.		1b. Radioactive Cost - Spent Fuel		\$ 179,415,352	
				1. Total Radioactive Cost		\$ 876,107,696	
				2. Non-Radioactive Cost		\$ 43,380,587	
				3. Total		\$ 919,488,283	
				4. 2019 NRC Minimum Cost Pursuant to 10 CFR 50.75 (b) and (c)		\$ 652,001,591	
(6) CALCULATION FACTORS:				(b) Projected Costs At License Expiration (2034)			
(a) Projected Escalation Rate		2.80%		1a. Radioactive Cost - License Termination		\$ 1,054,081,977	
(b) Source Of Escalation Rate		December 2019 TLG Escalation Analysis		1b. Radioactive Cost - Spent Fuel		\$ 271,451,942	
				2. Non-Radioactive Cost		\$ 65,633,985	
				3. Total		\$ 1,391,167,904	
(c) Projected Net-Of-Tax Rate Of Return				(8) REVENUE REQUIREMENTS FOR SC RETAIL:			
1. External Qualified Fund		4.52%, then de-risk to 2.14% (Note 1)		Annual Total Revenue Requirements			
2. External Non-Qualified Fund		4.41%, then de-risk to 2.05% (Note 1)		Radioactive - License Termination			
3. Internal Fund		n/a		1. Annual Revenue Requirement - External Qualified Fund			
4. Composite		n/a		2. Annual Revenue Requirement - External Non-Qualified Fund			
(d) SC Retail Jurisdictional Allocation Factor		11.270%		(Note 2)			
(e) Utility Ownership Factor		Robinson 2 100%		Radioactive - Spent Fuel			
		Brunswick 1 100%		3. Annual Revenue Requirement - External Qualified Fund			
		Brunswick 2 100%		4. Annual Revenue Requirement - External Non-Qualified Fund			
		Harris 1 100%		Non-Radioactive			
				5. Annual Revenue Requirement - Non-Radiological Qualified Fund			
				6. Total			
				(9) POST ACCIDENT PREMATURE DECOMMISSIONING INSURANCE:			
				See Note 5 to 2019 Duke Energy Consolidated Financial Statements			

ITEM / JURISDICTION		SC Retail	All Jurisdictions
(10) FUND BALANCES AT COST ESTIMATE STUDY DATE:			
Beginning balances used in cost and funding calculations			
(a) External - Qualified Funds - License Termination		\$ 84,729,985	\$ 611,212,365
(b) External - Nonqualified Funds - License Termination		\$ 22,285,372	\$ 177,372,554
(c) Internal Fund		\$ -	\$ -
(d) Total		\$ 107,015,357	\$ 788,584,919
(11) PROJECTED FUND BALANCES AT LICENSE EXPIRATION (Note 3):			
2034 Excluding Expenses			
(a) External - Qualified Funds		\$ 152,695,110	\$ 1,101,777,483
(b) External - Nonqualified Funds		\$ 37,099,183	\$ 309,426,280
(c) Internal Fund		\$ -	\$ -
(d) Total		\$ 189,794,293	\$ 1,411,203,763

Note 1: For purposes of ensuring adequate funds are available when needed, the external decommissioning funds will be "de-risked" (i.e., the portfolio will be moved from traditional growth investments to more secure investments) 5 years before decommissioning costs are expected to be incurred.

Note 2: NC Retail Jurisdictional Allocation factor was determined by using a lifetime weighted average through 2038, which represents the average license termination date of the DEP nuclear fleet.

Note 3: Projected fund balances for all jurisdictions includes projections for SC Retail and Wholesale customers which has not yet been filed or approved. As such, amounts are subject to change.

DECOMMISSIONING COST & FUNDING REPORT

AS OF December 31, 2019

(in Dollars)

(1) UTILITY:
Duke Energy Progress(2) PLANT:
Harris(3) UNIT:
Unit 2(4) COST STUDY COMPLETION DATE:
December 31, 2019

(5) DECOMMISSIONING STUDY INFORMATION		(7) DECOMMISSIONING COST ESTIMATE:	
(a) Decommissioning Year: license expiration	2046	(a) Current Year Dollars:	
(b) Decommissioning Method Selected:	Prompt Dismantlement	1a. Radioactive Cost - License Termination	\$ 766,188,130
(c) Cost Estimate Preparer	TLG Services, Inc.	1b. Radioactive Cost - Spent Fuel	\$ 400,912,133
		1. Total Radioactive Cost	\$ 1,167,100,263
		2. Non-Radioactive Cost	\$ 104,881,438
		3. Total	\$ 1,271,981,701
		4. 2019 NRC Minimum Cost Pursuant to 10 CFR 50.75 (b) and (c)	\$ 464,430,722
(6) CALCULATION FACTORS:		(b) Projected Costs At License Expiration (2046)	
(a) Projected Escalation Rate	2.67%	1a. Radioactive Cost - License Termination	\$ 1,559,030,978
(b) Source Of Escalation Rate	December 2019 TLG Escalation Analysis	1b. Radioactive Cost - Spent Fuel	\$ 815,771,494
(c) Projected Net-Of-Tax Rate Of Return		2. Non-Radioactive Cost	\$ 213,411,569
1. External Qualified Fund	4.61%, then de-risk to 2.14% (Note 1)	3. Total	\$ 2,588,214,041
2. External Non-Qualified Fund	2.42%, then de-risk to 2.05% (Note 1)		
3. Internal Fund	n/a		
4. Composite	n/a		
(d) SC Retail Jurisdictional Allocation Factor	11.270% (Note 2)	(8) REVENUE REQUIREMENTS FOR SC RETAIL:	
(e) Utility Ownership Factor		Annual Total Revenue Requirements	
Robinson 2	100%	Radioactive - License Termination	
Brunswick 1	100%	1. Annual Revenue Requirement - External Qualified Fund	\$ -
Brunswick 2	100%	2. Annual Revenue Requirement - External Non-Qualified Fund	\$ -
Harris 1	100%	Radioactive - Spent Fuel	
		3. Annual Revenue Requirement - External Qualified Fund	\$ -
		4. Annual Revenue Requirement - External Non-Qualified Fund	\$ -
		Non-Radioactive	
		5. Annual Revenue Requirement - Non-Radiological Qualified Fund	\$ -
		6. Total	\$ -
		(9) POST ACCIDENT PREMATURE DECOMMISSIONING INSURANCE:	
		See Note 5 to 2019 Duke Energy Consolidated Financial Statements	
ITEM / JURISDICTION		SC Retail	All Jurisdictions
(10) FUND BALANCES AT COST ESTIMATE STUDY DATE:			
Beginning balances used in cost and funding calculations			
(a) External - Qualified Funds - License Termination		\$ 90,499,691	\$ 609,801,685
(b) External - Nonqualified Funds - License Termination		\$ 15,112,127	\$ 86,290,870
(c) Internal Fund		\$ -	\$ -
(d) Total		\$ 105,611,819	\$ 696,092,554
(11) PROJECTED FUND BALANCES AT LICENSE EXPIRATION (Note 3):			
2046 Excluding Expenses			
(a) External - Qualified Funds		\$ 271,977,275	\$ 2,253,514,510
(b) External - Nonqualified Funds		\$ 23,314,084	\$ 153,907,421
(c) Internal Fund		\$ -	\$ -
(d) Total		\$ 295,291,360	\$ 2,407,421,931

Note 1: For purposes of ensuring adequate funds are available when needed, the external decommissioning funds will be "de-risked" (i.e., the portfolio will be moved from traditional growth investments to more secure investments) 5 years before decommissioning costs are expected to be incurred.

Note 2: NC Retail Jurisdictional Allocation factor was determined by using a lifetime weighted average through 2038, which represents the average license termination date of the DEP nuclear fleet.

Note 3: Projected fund balances for all jurisdictions includes projections for SC Retail and Wholesale customers which has not yet been filed or approved. As such, amounts are subject to change.